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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,008	03/13/2007	Pratibhash Chattopadhyay	FER-15618.001.001	6289
7609 7590 02/26/2010 RANKIN, HILL, & CLARK LLP 23755 Lorain Road - Suite 200 North Olmsted, OH 44070-2224				
EXAMINER				
HUDA, SAIED M				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
02/26/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,008

Applicant(s)

CHATTOPADHYAY ET AL.

Examiner

SAEED M. HUDA

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Interval Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The response filed on 10/30/2009 has been fully considered and entered into the record. Claims 1, 3-5, 7, and 10 are pending in the application

Response to Arguments

2. Applicant's arguments with respect to claims 1-2 and 4-10 have been considered but are moot in view of the new ground(s) of rejection, to the extent that the arguments are applicable to the new grounds of rejection; they are addressed below.

Applicant states that Daitch discloses a method for producing an aerogel material that is doped with a special bioaffinity compound and goes on to state that the gel consists of a solid silicate network that is soaking in the ethanol solution. Applicant states that the Examiner stated that the matrix is not in particle form. After having reviewed the Daitch reference, it is clear that the matrix is in fact in particle form (see figure 2A), but that the removed phase is not solid. The Chattopadhyay et al. reference is utilized in the rejection below as a teaching reference. A newly formulated rejection is presented below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (US 2002/0005600 A1) in view of Hanna et al. (US 6063138).

a. Regarding claims 1 and 10, Ma teaches a 3D porous polymeric scaffold (abstract). Ma teaches that a natural or synthetic composition is cast to form a body (solid) of shaped porogen material ([0053]). Ma goes on to teach that the porogen material is removed thereby forming a porous material ([0054]). The porogen material can be waxes, polymers, and sugars ([0055]). Though Ma does not explicitly state that particles are formed, particles can be formed if the proper cast body starting geometry is utilized. Ma states that the porogen material may be removed by any suitable means ([0070]), but fails to explicitly teach the use of a supercritical fluid. Ma fails to explicitly teach the aerodynamic size range or geometric volume diameter; however, the claimed size range and volume diameter is merely dictated by the desired dimensions particles in the product; therefore, they do not impart any patentably inventive concept to the claimed method. Ma fails to teach the use of a supercritical fluid.

Hanna teaches a method for forming particles of a substance by introducing a solution or suspension of a substance in a first vehicle and a second vehicle (first and second material) which is miscible with the first vehicle (abstract). Hanna goes on to teach that the first vehicle may comprise sugar (column 5, lines 5-10) and where a supercritical fluid is introduced to disperse (extract) the second vehicle (claim 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to use a supercritical fluid to

dissolve the second material of Ma in that this is an art recognized method of removing a second material from a combined first and a second material as exemplified by the teaching of Hanna.

b. Regarding claim 3, Ma teaches that the scaffolding can be made from synthetic polymers such as polylactide or polyglycolide (i.e. biodegradable polymers).

c. Regarding claim 7, Ma in view of Hanna teach the use of carbon dioxide as a supercritical fluid (Hanna column 6, lines 35-39).

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (US 2002/0005600 A1) in view of Hanna et al. (US 6063138) as applied to claim 1 above, and further in view of Stalling et al. (US 5198115).

Ma in view of Hanna et al. fails to explicitly teach a fluidized bed. Stalling et al. teach a supercritical fluid extraction method where supercritical fluid is used to extract a sample from a matrix where a solvent is present and the material remains in the solvent after exposure to super critical fluid (column 6, lines 38-column 7, line 35). It would have been obvious to one having ordinary skill in the art at the time of the invention to use the invention of Stalling et al. in Ma in view of Hanna et al. because this will allow for unlimited control of pertinent process parameters (column 1, lines 15-20).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAEED M. HUDA whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHANH NGUYEN/
Primary Examiner, Art Unit 1791

/SAEED M. HUDA/
Examiner, Art Unit 1791